

## **Comments: Question 7**

A substantial portfolio of technology infrastructure, applications and architecture support our ability to exchange information between county departments and share information with external governmental agencies.

### **Intranet**

The cornerstone of web-based information sharing between County departments is our robust Intranet. Aptly named the Electronic Business Center (EBC), the site was developed by the same team that created our Internet. It was built to act as an employee-centric information resource available to all employees with a networked PC. The stated goal of the EBC is to make it easier for staff – at all levels within the organization - to accomplish their work by providing a single access point for useful information, processes and tools in a secure and user-friendly environment. Attachment IT.7.-1 is a high level site map for the EBC. Attachment IT.7.-2 is a screen print of the EBC Home Page.

The EBC interface design strikes a balance between making maximum use of the valuable desktop “real estate” and retaining a straightforward, easy to use interface. The graphical nature of the Web has been leveraged to the greatest-possible degree. There are even multiple “layers” of content on the home page that may or may not be visible based on current circumstances. An example of this is our “System Status” layer. Under normal circumstances, it is not shown on the home page. However, if a system problem or virus threat exists, the Help Desk staff updates an XML file which in turn causes the System Status layer to pop up on the home page. This method of informing County staff in near real time has proven to be very effective at “getting the word out” and reducing calls to the Help Desk. Attachment IT.7.-3 is a screen print of an EBC Home Page System Alert Message.

The EBC received an enthusiastic reception from County staff with daily user count and additional content constantly on the rise. Since its first introduction 3 ½ years ago, we have migrated a significant percentage of the reference documents, policy manuals, written procedures and other “tribal knowledge” from binders, hard drives, and people’s memories to the EBC. The ability to capture this information and publish it in a manner that is freely available to most employees has helped the County to become significantly more effective. This result, in turn, has improved the speed and quality of the many services delivered to our citizens.

The foundation technology for the County’s Intranet infrastructure is Windows NT and IIS running on fault-tolerant rack-mounted Compaq servers. The EBC information is stored in SQL Server tables, but the home page content is spun to XML files for performance reasons. The web servers dynamically build the current home page view by parsing the XML files. All web-based applications are developed in Active Server Pages (ASP) using Visual Studio. The applications requiring higher security provisions rely on our underlying NT domain infrastructure to provide “pass-through” authentication on an individual user basis. Several web-based applications have been integrated with our Exchange infrastructure to provide seamless messaging and scheduling features.

An example where the two technology infrastructures have been integrated to improve information sharing is the County e\*Nouncements application (See Attachment IT.7.-4). A common challenge for email support staff is balancing the need for enterprise-wide communication with preserving the system resources consumed by broadcast email messages. A broadcast email is sent by the system to every known mailbox. They consume substantial processing and storage over time. We developed a web application for the EBC that collects broadcast message content, aggregates it in a public folder, and then sends a single email to all users. The single broadcast email contains descriptive links to web pages that display the information. This innovative approach leverages both our Intranet and groupware infrastructures to improve information sharing countywide.

The EBC has become the de-facto starting point for information sharing within the County. A common follow-up question to a presentation or briefing in a management or departmental team meeting is “Can that be posted to the EBC?” The information freely available on our Intranet spans a broad scope, from high-level universal interest to detailed operational details. The EBC home page can even be

personalized by the user to best suit their needs, and will “remember” their most frequently needed information and applications between visits.

Report.Web, an add-in technology to our Intranet infrastructure, has extended the EBC’s reach to county staff members requiring unified access to financial and HR information. (See Attachment IT.4.-1 for additional reports found on Report.Web.)

## **Centralized Exchange Infrastructure**

Over the past five years, the County has standardized on Microsoft Exchange for groupware services (email, individual and group calendars, meeting scheduling, public folders). In 1995, there were 11 disparate email systems running in Maricopa County. It was very difficult to communicate and share information effectively between the systems – each of which was operated by a different IT organization. Standardizing on a common tool enabled the County to develop a robust and fault-tolerant shared infrastructure that could be operated and maintained by a central support team.

This technology initiative has produced numerous benefits beyond the cost savings generated through centralization. County groupware users now have access to a unified global address list in addition to smaller address lists related to their department, team or project. One-click communication and schedule coordination is now possible with anyone in the County.

An extensive public folder tree has also been developed that allows documents to be easily shared with others. Public folders can be opened for Countywide use, or secured for departmental, team or ad-hoc group use. Many of the conference rooms and other shared resources have been set up within Exchange and may be scheduled for use by simply including them along with the list of attendees when scheduling a meeting. The public folders have also been integrated with our Intranet content to create web-based discussion forums that may be used to share information or request input from other staff members. Examples of these discussion forums are the Management Resource Center forum used to discuss management techniques and new ideas, and the PC/LAN Managers forum where IT support staff from the various departments share technical information (See Attachment IT.7.-5).

A further benefit delivered via the centralized groupware system has been improved anti-virus capabilities. A real-time virus scanning utility has been incorporated into the system, and every message is examined for a virus signature. If found, the sender and intended recipient are notified and the infected file is deleted. As email has become the primary distribution channel for computer viruses, the ability to protect our users in this manner has preserved their confidence in fully leveraging this important communications tool.

## **Remote Access Infrastructure**

Maricopa County deploys a centralized, secure, remote access system (RAS) for all employees who need access to County information systems from mobile or remote locations. The system was initially designed to replace over 500 desktop modems to improve network security. As configured today, the infrastructure supports approximately 1400 employees and teaming partners through dial-up, ISDN or a virtual private network (VPN) based upon DSL and cable modem. The extensive infrastructure provides full, authenticated computing access to mobile workers, teleworkers and road warriors who are on business trips regardless of location throughout the world.

## **800MHZ Radio Network**

In 1994 the Board of Supervisors approved an aggressive plan to upgrade the radio capabilities within the County. The program, named SmartZone, has been an overwhelming success for our employees and the citizens they serve. The SmartZone 800MHZ radio network supports the communications needs of 18 County departments, including the Sheriff’s Office, MCDOT, Flood Control, and Emergency Management. An additional benefit gained by developing this information sharing infrastructure was the ability to reduce our overall radio operational costs by renting airtime on the system to other municipalities within the county. Currently, 9 outside agencies are using the system, several as their primary communication system. An additional capability of the system is support for multi-agency task forces.

This provides seamless information sharing across jurisdictional boundaries in addition to the secure communications afforded by the system within the county – both inter and intra agency.

Despite this ability to exchange information, we are constantly engaged in improving the capacity, speed and quality of these systems to insure that our transition to e-Government is unimpeded. The expansion of our SmartZone wireless network, telecommunications network, and integrated criminal justice system projects are three examples of this dedication.

## **Current Information Sharing Activities**

### **Maricopa County's One Stop Shop – Planning & Development**

Prior to the fall of 1997, several of the County's departments (Planning & Development [P&D], Flood Control, MCDOT) had explored a number of issues relating to closer coordination of development regulations and implementation (relating to real property in unincorporated areas of Maricopa County) from the public side of the equation. In the fall of 1997, due to the advances in technology and a reduction of technology costs, P&D began to explore the idea of an "electronic" One Stop Shop. In the spring of 1998, the concept had been developed sufficiently to present to the Board of Supervisors. On April 21, 1999, the Board adopted a resolution creating the One Stop Shop Program assigning lead agency responsibility to P&D, designating P&D as the customer interface for the program, and assigning centralized automation authority to P&D. Attachment IT.7.-6 contains detailed information regarding the One Stop Shop.

As the designated lead agency to implement the One Stop Shop Program (other participating departments include MCDOT, the Flood Control District, Environmental Services, and the Assessor's Office), P&D had to assume a number of responsibilities to ensure success of the program. Some of the most significant of these responsibilities have included implementation of a unified permit software system to be utilized by all One Stop Shop departments and providing the one point of customer service interface on a variety of development-related permits and applications. Implementing these responsibilities is well underway. New advances in technology have made the One Stop Shop concept a reality. The implementation of a uniform permitting system, deployment of field computers and an interactive voice response system is anticipated prior to July 1, 2001. Permitting system training manuals have been developed and are being updated as required.

An award-winning Web site was created that includes departmental development regulations. Electronic reporting to the Arizona Department of Revenue, Census Bureau, Maricopa Association of Governments, and Arizona State University from the common permit database of various County departments has also been implemented. This has allowed for resources to be re-allocated to more customer-specific requests, which is the main idea behind P&D's Strategic/Business Plan. A Technology Plan has been developed for the department as well as a Technology Strategic Plan and a Disaster Recovery Plan. Implementation of these plans has begun.

Future planned technology expansions include radio frequency real-time interface with field computers and the permitting software, geographical information system (GIS) mapping capabilities linked to permitting software, linked Web pages for all One Stop Shop agencies, and on-line permitting. Discussions have begun to identify a common development permit application process between regional governmental jurisdictions located in the County.

### **Maricopa County Sheriff's Office (MCSO)**

As the jailer for all law enforcement agencies within the County, MCSO is the primary collector and information disbursement department for justice and law enforcement (JLE) agencies. JLE information is collected during the intake process and includes all Federal, State, and Local mandated responsibilities for obtaining the demographics, fingerprints, and mugshots of the prisoners. All information collected resides in the Jail Management System (JMS). A few examples of the many types of information exchanged with County and external members of the JLE community include:

- **AZ Department of Economic Security (DES)** – information on all convictions is automatically fed to DES to prevent any overpayments to individuals receiving benefits during their incarceration.

- **AZ Department of Public Safety (DPS)** –all booking information, digital mugshots, and fingerprints taken during the intake process are sent to the State for identification and criminal history purposes. DPS then forwards the information to any and all agencies that require it (i.e., warrants, holds, etc.).
- **AZ Department of Public Safety ACJS** – all information required by the State not sent to DPS is exchanged.
- **AZ State Sex Offender Database** – all sex offenders are required to register with the local Sheriff in the County they reside. Once an offender has registered, MCSO exchanges the information with the State, and receives information that an offender previously from our County is being released.
- **Maricopa County Adult Probation Department** - all information on parolees taken into custody is automatically forwarded to Adult Probation for them to determine what course of action to take.
- **Maricopa County Attorney's Office** – all booking and case related information is sent to the County Attorney's Office for them to use in determining the formal charges an inmate will receive.
- **Maricopa County Clerk of the Superior Court (COC)** – all disposition information is exchanged with the COC to assist them in their reporting responsibilities.
- **Maricopa County Correctional Health Services and Pharmacy** – information on all inmates is exchanged with Correctional Health Services to insure that inmates receive the proper medical attention.
- **Maricopa County Juvenile Court System** – with the passage of legislation requiring juveniles to be charged as adults for certain crimes, MCSO and the Juvenile Court exchange all necessary information relating to these cases.
- **Maricopa County Superior Court** – as with the County Attorney's Office, all information regarding an inmate is exchanged with the Court to assist in the disposition of cases and the transportation of inmates to proceedings.
- **State Mental Health Provider (Comcare)** – at the time of booking, all inmate names are submitted to Comcare to determine if they have ever been treated in a State mental facility. The benefit of this process is to protect the safety of both the inmate and jail staff, and to notify the State that one of it's patients has been detained or arrested.
- **US Immigration and Naturalization Service (INS)** – all information on non-US citizens that are presented to the intake area is immediately sent to INS for them to take the appropriate action. Additionally, we receive information from INS on individuals they are looking for, including all aliases in case we have already booked them under an assumed name.
- **US Social Security Administration (SSA)** – at the time of conviction, MCSO sends an automatic update to SSA notifying them of the conviction. From this update, SSA automatically stops the payments of Social Security benefits to the individual. Since its implementation, the program has saved the taxpayers millions dollars.

## Enterprise Architecture

### Integrated Criminal Justice Information System (ICJIS)

ICJIS is a new Maricopa County department, formed in March, 2000, subsequent to the passage of Propositions 400 and 401 in 1998. The Maricopa County Board of Supervisors urged voters to adopt the propositions as “vital public safety measures” to be funded by the proposed one-fifth cent sales tax.

Proposition 400 specified that “Monies derived from the tax levied pursuant to this resolution shall be used solely to 1) Finance construction of new adult and juvenile jail facilities; 2) Maintain and operate adult and juvenile jail facilities; and 3) Fund the following for the purpose of reducing the expense of adult and juvenile jail facilities: a) Implementing an integrated criminal justice information system” (and eight other initiatives). Therefore, the mandated mission of ICJIS is to facilitate the integration of disparate information systems among Maricopa County criminal justice departments for the purpose of reducing expenses resulting from non-integrated criminal justice systems.

The ICJIS initiative is so critical that the ICJIS electronic community has an Executive team and a Business team responsible for policy and project management, in addition to the ICJIS department, itself, which is responsible for designing, developing, and implementing the actual ICJIS system.

#### ICJIS Program Scope

- Criminal justice agency data
- Adult felony cases
- JLE partners: Clerk of the Court, The Courts (Superior, Justice and Juvenile Courts, Adult Probation, Pre-Trial Services), Indigent Defense, MCSO, and the County Attorney's Office.
- Subsequent expansion to local law enforcement agencies
- Future expansion to include state and regional agencies
- Leverage current technology and systems
- Use of phased implementation
- Awareness of other integration work underway

#### ICJIS Program Goals

- Eliminate duplicate and redundant data entry – provide single point of data entry
- Increase information exchange and analysis
- Improve data quality
- Enhance horizontal criminal case processing
- Provide broader access to case data
- Provide for faster case disposition to assist in reducing costs of incarceration

The Vision statement adopted by the Executive team states that "Integration will allow enhanced productivity, efficiency, communication, and will eliminate redundancy". As a result, ICJIS will have a positive impact on improved public safety by making available to criminal justice stakeholders timely, accurate, and complete information concerning offenders. Improved decisions will be made through the increased availability of performance measures relating to public policy. Staff productivity will increase with the elimination of redundant data collection and duplicate data entry. Paper-based processes will be reduced or eliminated with the rapid availability of electronic records. Criminal justice information will be accessible in a timely, accurate, and comprehensive fashion by criminal justice agencies. The public will have immediate access to relevant information.

The County considers this initiative to be of significant importance. The County Manager facilitates the Business Team meetings himself. Attachment IT.7.-7 summarizes the ICJIS initiative. Attachment IT.7.-8 is a copy of the *Target Convergence Architecture Plan* for ICJIS that the Chief Information Officer (CIO) will be incorporating into the County's IT Master Plan and Enterprise Architecture Plan. Attachment IT.7.-9 contains the ICJIS organization charts. Attachment IT.7.-10 contains screen prints of the ICJIS website, hosted on the EBC. This website will facilitate the information sharing of ICJIS progress amongst County employees as well as those intimately involved in the initiative.